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Remarks

Claims 16-19, 21, 24-26, 28 and 29 have been elected. Claims 1-15 and 27 have been withdrawn and claims 20, 22-23 have been cancelled.

The submitted Information Disclosure Statement has been accepted and considered in full. The claim of foreign priority has been accepted, as have been the drawings.

Utility

All pending claims were found to lack utility as required by 35 USC § 101. This lack of utility was asserted based on the claims being broader than the asserted utility found in the specification. All pending claims have been amended to limit the claims to a method for producing optically induced mechanical forces on a target cell or a system also including a target cell limitation. The specification in the background section does provide an asserted utility for the claims as amended. This amendment should obviate both the present rejection and the attendant 35 USC § 112 first paragraph rejection.

Enablement

On page 4 of the search report, all pending claims were found to lack sufficient enablement as required by 35 USC § 112, first paragraph. The Office action notes "the specification, while being enabling for producing optically induced mechanical forces on target cells" does not enable the practice of broader claims. The applicant has amended the claims to limit all claims to providing optically induced mechanical forces on target cells. This renders the present objection moot.

Additional specific issues with claims were noted. First, in claim 16, the claim is directed to a method for producing optically induced forces in a target object, but the

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body of the claim did not include this step. Claim 16 has been amended to specifically claim applying an optical tweezer to said linked auxiliary object, wherein said mechanical forces are induced to said at least one of the target cells occurs with an application of the optical tweezer to said linked auxiliary object. This change obviates the present rejection.

Next, claim 18 was found not to be enabled, based on a finding that it was unclear how the applicants are fixing objects. Claim 18 has been amended to state that the auxiliary object is a fixed erythrocyte. Fixing erythrocyte is enabled by the applicants disclosure on page 6, and the well known methods in the art for fixing red blood cells. Those of ordinary skill in the art would understand that fixation is to preserve a cell by stabilizing it, usually by denaturing or cross-linking constituent proteins, such as cell structural proteins.

Finally, claim 20 was found not to be enabled, based on a finding that it is unclear how the applicant is attaching objects. In response, claim 20 has been amended. Claim 20 has been amended to limit the method to adhering at least one of the auxiliary objects to at least one of the target cells. Again, given the disclosure (See for example pages 7, 9, 10 and 12-14) the claim as amended is amply enabled.

Definiteness

On page 6 of the Office action, all of the pending claims were rejected as not definite and failing to comply with the requirement of 35 USC § 112, second paragraph. The claims have been amended to address this issue.

First, claim 16 was found not to be definite because the preamble recited a method that the Examiner stated was not carried out in the subsequent steps. These subsequent steps have been amended to show how the preamble is effected in the claims.

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Second, the limitation in claim 16 of "providing target objects" was found to be unclear. This element of claim 16 has been removed, so this rejection is moot.

Third, the claim term "linking" was found to be unclear. This term has been replaced with "adhering". Again, given the explanation of this term found in the specification, this term is definite.

Fourth, the term "linking includes fixing" was found to be indefinite. This claim has been amended to simply specify that the "auxiliary objects is a fixed erythrocyte." This term is definite and supported in the specification.

Fifth, the term "attaching . . . objects" was found to be not definite in claim 20. As in claim 16, the claim has been amended to instead claim "adhering", which is fully supported.

Finally, language in claim 22 was found indefinite. Claim 22 has been canceled, rendering the objection moot.

Section 102

The next issue is whether the applicant's claims 16, 18-26 and 28 are anticipated by a cited reference. A review of the teachings of this reference indicates that it does not anticipate the pending claims.

A claim is anticipated only if each and every element as set forth in the claim is found in a single cited art reference. See Verdegaal Bros. v. Union Oil of California, 814 F.2d 628, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. See Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

In the present instance, the anticipation finding was predicated on the finding that the target objects were beads, and that the auxiliary objects were erythrocytes. This combination was found to be anticipated by Henon et al. In

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the amended claims, auxiliary objects may be erythrocytes, but the target objects have been amended to instead be limited to "target cells". Given that the claimed method and device, as amended, are not disclosed in the cited reference, the claims are not anticipated and should be allowed.

Section 103

The final issue is whether the applicants' claims 17 and 29 are rendered obvious in light of a combination of Henon et al. and Visscher et al. and thus are not allowable under 35 USC 103. An analysis of the cited references indicates that reconsideration is warranted.

In making an obviousness rejection, the Examiner must first examine the scope and content of the prior art, ascertain the differences between the prior art and the claims in issue, and resolve the level of ordinary skill in the art. Graham v. John Deere 148 USPQ 459 (1966). To establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 165 USPQ 494, 496 (CCPA 1970).

As noted above, the base, independent claims 16 and 21 on which claims 17 and 29 depend have been amended such that at least one of the elements disclosed in each of these claims is not taught by Henon et al. Visscher et al. does not remedy the deficiencies of Henon et al. in teaching the elements of the independent claims. Therefore, dependent claims 17 and 29 are not obvious for at least the same reasons independent claims 16 and 21 are not obvious.

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Conclusion

The applicant respectfully requests reconsideration in light of the submitted remarks and amendments. A notice of allowance is earnestly solicited. If any matter relating to this case needs to be discussed please call our office at (408) 297-9733 between 9 a.m. and 5 p.m. Pacific time.

Respectfully submitted,

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being facsimile transmitted to: Examiner Pablo S. Whaley, Group Art Unit 1631, Fax No. 571-273-8300, U.S. Patent and Trademark Office, on the date shown below.

Signed: Merle P. Garcia
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